What is claimed is:

1.   An optical interferometer comprising:

an optical fiber for outputting a light beam to be measured;

a lens for converting the light beam from the optical fiber into a parallel light beam;

a beam splitter for branching the light beam to two optical paths perpendicular to each other to make a reflected light beam and a transmitted light beam, the beam splitter for combining the reflected light beam and the transmitted light beam to output a wave-combined light beam;

a first reflection unit for reflecting the reflected light beam to return the reflected light beam to the beam splitter, in which the reflected light beam returned to the beam splitter is in parallel to the reflected light beam emitted from the beam splitter;

a second reflection unit for reflecting the transmitted light beam to return the transmitted light beam to the beam splitter, in which the transmitted light beam returned to the beam splitter is in parallel to the transmitted light beam emitted from the beam splitter; and

a light receiver for receiving the wave-combined light beam from the beam splitter,

wherein the incident beam is inclined with respect to a normal line of an incident surface of the beam splitter.

2.   The optical interferometer according to claim 1 wherein a central axis of the optical fiber is different from a central axix of the lens to incline the light beam with respect to the normal line of the incident surface of the beam splitter.

3.   The optical interferometer according to claim 1, wherein the first and the second reflection units are reflectors.

4.   The optical interferometer according to claim 1, wherein the first and the second reflection units are corner cubes.

5.   The optical interferometer according to claim 1, wherein the optical fiber is an obliquely polished optical fiber.

6.   The optical interferometer according to claim 1, wherein the inclined angle of the incident beam is in a range of from 0.5° to 10°.

7.   The optical interferometer according to claim 1, wherein the the inclined angle of the incident beam is in a range of from 1° to 2°.